

## ABSTRACT OF THE DISCLOSURE

A parameter adjusting device and a parameter adjusting method configured to adjust a great number of parameters used  
5 for a circuit design model of a semiconductor element such as a transistor within a short time. A parameter adjusting device adapts a circuit design model wherein a formula for analysis is derived based on a surface potential such as, for example, the HiSIM, as the circuit design model of a semiconductor element;  
10 defines a chromosome wherein a respective great number of parameters of the model are genes; and optimizes the parameter based on property measured data of a tested element, using a genetic algorithm. Parameter adjustment comprises a first step adjusting the parameters which determine the structure of the  
15 semiconductor element based on the property measured data of a long channel group; and a second step adjusting nonadjusted parameters based on the property measured data of various lengths of channels with reference to a result of the first step. Adjustment of the optimum parameters within a short time and  
20 with a high degree of accuracy, which was conventionally difficult, can be performed.